

**4.4.13-1 INTRODUCTION**

This chapter considers the effects of the Portageville Bridge Project on the visual character and aesthetic resources of the surrounding area.

**4.4.13-2 METHODOLOGY**

The analysis of visual resources was prepared in accordance with the guidelines for visual analyses contained in documents prepared by the Federal Highway Administration (FHWA), including *Guidance for Preparing and Processing Environmental and 4(f) Documents* (1987), *Environmental Impact Statement Visual Impact Discussion* (undated), and *Guidance Material on the Preparation of Visual Impact Assessments* (1986), which are the standard U.S. Department of Transportation (USDOT) methodologies for assessing potential impacts to visual and aesthetic resources. This analysis has also been prepared in compliance with the New York State Department of Environmental Conservation (NYSDEC) *Assessing and Mitigating Visual Impacts* guidance (DEP-00-2, issued 7/31/00) on assessing and mitigating impacts on visual and aesthetic resources.

This chapter assesses the potential impacts of the No Action Alternative and the Preferred Alternative) for the Project. This analysis considers the effects on locations from which the Project would be visible. Due to the hilly terrain, dense vegetation, and curving river shoreline that composes much of Letchworth State Park, the Project site is visible only from discreet locations and is generally not visible from long distances. Therefore, the study area for visual resources has been delineated as approximately 1.5 miles from the Project site (see **Figure 4.4.13-1**). To prepare this analysis, information was collected through field visits, visually sensitive locations and viewer groups were identified, and duration of views assessed to determine any potential effects.

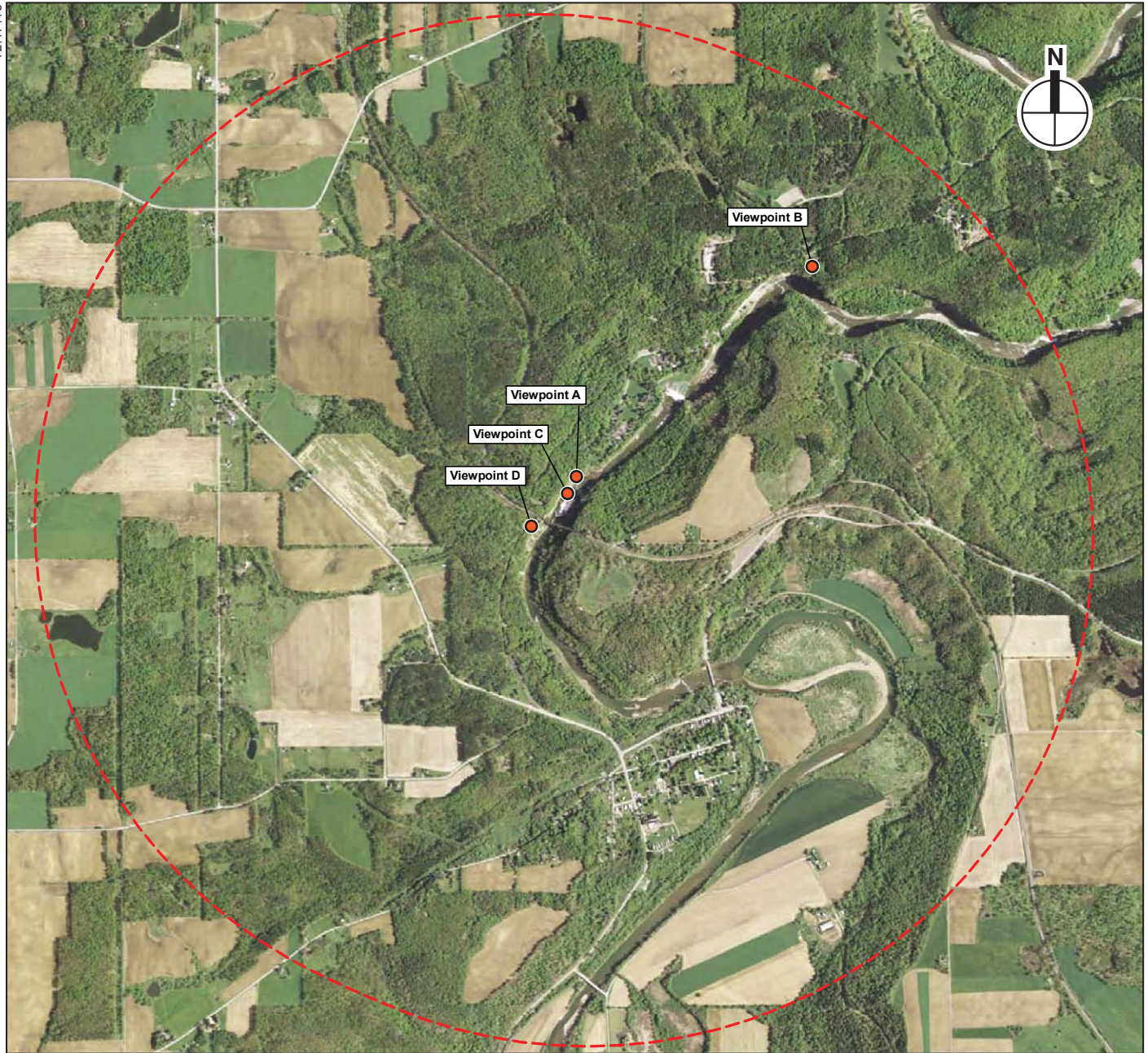
In compliance with NYSDEC guidelines, aesthetic resources were identified and a visual assessment conducted. Utilizing visual modeling techniques, the existing bridge and the conditions that would be present under the Preferred Alternative were assessed as to their relative visual impacts from specific viewpoints and distances. This modeling was conducted to provide some indication as to whether any specific viewpoint might be associated with obvious positive or negative visual impact or if a specific bridge type might blend more or less effectively with the park surroundings.

The visual assessment was prepared under the direct guidance of a landscape architect experienced in the preparation of visual impact assessments. It provides the following:

- A description of the visual character of the Project site and study area;
- Identification of aesthetic/visual resources and viewer groups;
- Identification of key views for the visual assessment;
- Evaluation of the visibility of the Project site in the study area;
- A description of visible components of the Project under the Preferred Alternative; and
- Assessment of the visual impacts of the Project.

12.17.13

Sources: USDA Geospatial Gateway



● Viewpoint Photograph Location  
(Corresponds to Figures 4.4.13-12 through 4.4.13-19)

- - - 1-1/2-Mile Radius

0 3000 FEET  
SCALE

The results of the visual assessment are described below. **Appendix D** provides the complete *Visual Impact Assessment*, including detailed methodology on the preparation of the viewshed analysis that was undertaken for the Project.

### 4.4.13-3 EXISTING CONDITIONS

#### 4.4.13-3-1 Aesthetic Resources and Visual Character

The Project site and study area include a number of resources that NYSDEC's visual impacts guidance document identifies as aesthetic resources of statewide importance. These include Letchworth State Park, a state park that is listed on the State and National Registers of Historic Places (S/NRHP) with the Portageville Bridge as a contributing element to its listing (see Chapter 4.4.11, "Historic and Cultural Resources"); and the Genesee River, which is designated as a Scenic River by New York State and as a Study River under the federal Wild and Scenic Rivers Act program (for more information, see Chapter 4.4.3, "Wild and Scenic Rivers"). In addition, Letchworth State Park has a number of scenic viewing locations, including the scenic overlooks that are located along the edge of the Genesee River gorge, and park trails, including those that run along the west and east rims of the Genesee River gorge.

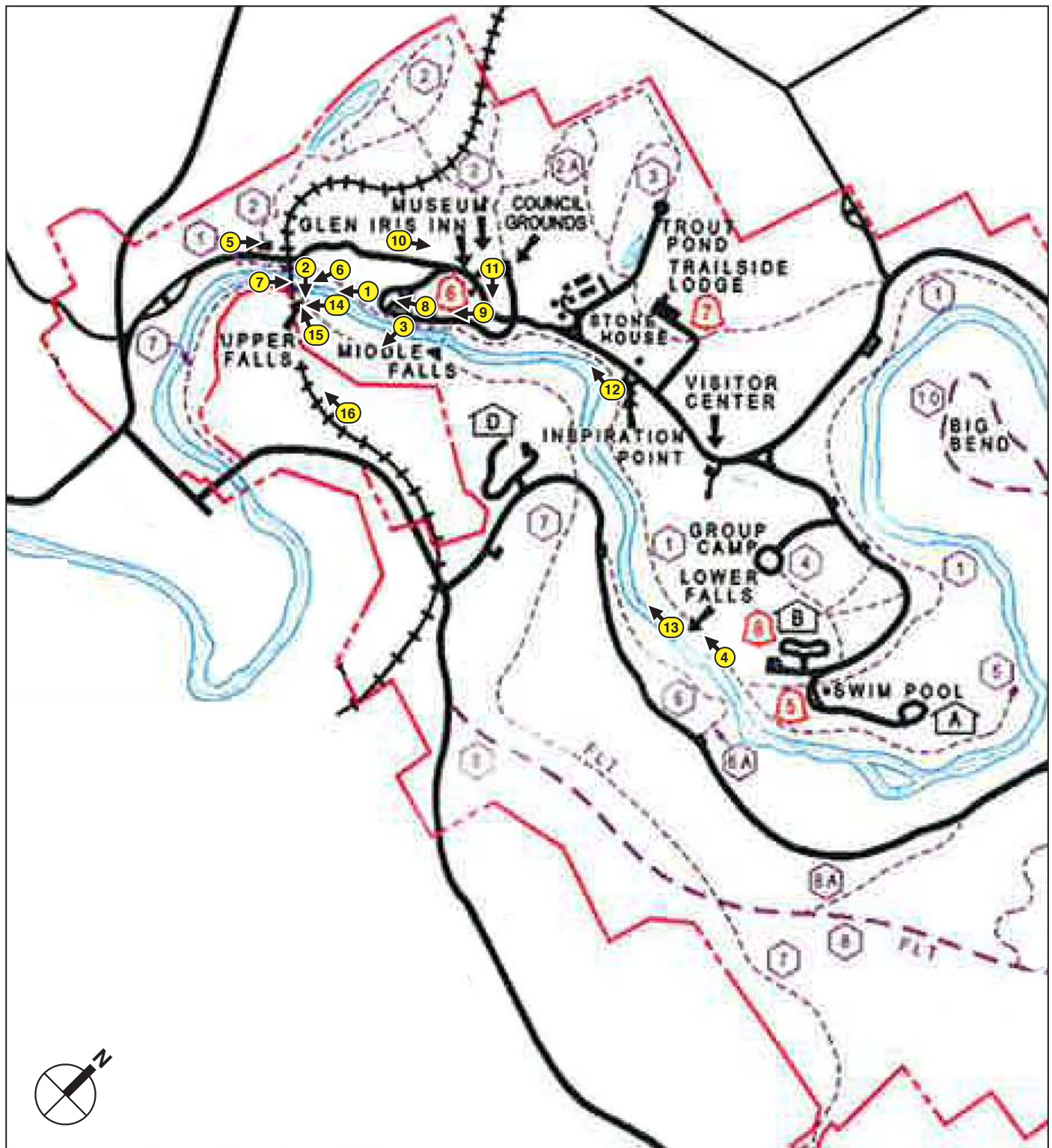
##### *Letchworth State Park and Portageville Bridge*

Letchworth State Park is referred to as the "Grand Canyon of the East," with scenic natural features including the Genesee River, which flows northward on a meandering course through a gorge, and with three dramatic waterfalls—the Upper, Middle, and Lower Falls, located at its southern end within the gorge (see **Figure 4.4.13-2**). The 14,345-acre park is organized around the river, and consists of hilly and forested natural terrain with mowed grassy recreational areas containing picnicking and interpretive areas (see **Figure 4.4.13-3**). A park road runs along the western side of the Genesee River with turnoffs leading to viewpoints and other park areas. On the eastern side of the river, park roads provide access to the south and north ends of the park, but there is no continuous park road along this side of the river. A number of trails also run along both sides of the river for the length of the park (see Figures 4.4.12-1 and 4.4.12-2 of Chapter 4.4.12, "Parks and Recreational Resources"). The park's scenic features include its natural elements, including the forested gorge, waterfalls, and scenic vistas, including views of the railroad bridge; and its historic elements, stone walls and staircases along the park's roads and trails, stone structures (comfort stations, concession stands, etc.) and picnic tables, and a number of historic structures such as the Glen Iris Inn. Many of the most scenic elements of the park are located in the southern half of the park, which houses the three major waterfalls and most of the historic structures in the park. The Portageville Bridge contributes to the scenic character of this end of the park and is depicted on park postcards and memorabilia. As a state park that is listed on the S/NRHP, Letchworth State Park is an aesthetic resource of statewide significance. The Genesee River and gorge, waterfalls, and the Portageville Bridge are contributing elements of this aesthetic resource.

The river gorge is approximately 300 feet deep at the Portageville Bridge and as much as 550 feet deep in other locations. At the south end of the park, this steep, forested gorge is spanned by the Portageville Bridge. The bridge's steel viaduct is supported by six towers, with two founded in masonry piers in the river and four on the banks of the river (see **Figure 4.4.13-4**).

The Portageville Bridge is located directly south of the Upper Falls (see view 1 of **Figure 4.4.13-4**). The Upper Falls are a beautiful and powerful feature in the park, with mist rising above the cascading water. From the Upper Falls, the north-flowing river soon reaches the Middle Falls, with a larger and more impressive drop off (see view 3 of **Figure 4.4.13-5**). A third





NOT TO SCALE

- ① → View Direction and Reference Number  
(Corresponds to Figures 4.4.13-4 through 4.4.13-11)

NOTE: See Figure 4.4.12-2 of Chapter 4.4.12,  
"Parks and Recreational Resources" for Trail Legend





PORTAGEVILLE BRIDGE

Aerial Photograph  
Figure 4.4.13-3





View south from the Middle Falls Scenic Overlook.  
Views include the Portageville Bridge and the Upper Falls

1



View east under Portageville Bridge from Gorge Trail #1

2





View south of the Middle Falls from stone patio in from the Glen Iris Inn.  
The Gorge Trail #1 is also visible

3



View south of the Lower Falls from Gorge Trail #1

4

waterfall, the Lower Falls, is located approximately two miles north of the Upper Falls (see view 4 of **Figure 4.4.13-5**).

One main park road runs along the west side of the Genesee River, from the south end of the park to the north. This scenic road, lined by stone walls in many locations, rises and falls with the changing terrain of the park and provides a number of scenic vistas (see view 5 of **Figure 4.4.13-6**). Park Road also provides access to the park's historic and recreational features, including picnic areas, scenic overlooks, the Glen Iris Inn, and other park features. Between the road and the river, the Gorge Trail follows the curve of the river, providing direct pedestrian access to a number of scenic overlooks of the gorge and the falls within the 1.5-mile study area (see view 6 of **Figure 4.4.13-6**).

In the summer months, the Portageville Bridge is visible behind dense tree cover on Park Road just south of the bridge near the Portageville Entrance to the park. As the road bends toward the bridge, the portion of the bridge that spans the roadway and Gorge Trail becomes clearly visible, but the span across the gorge is not readily visible because of the vegetation and terrain in this area (see view 7 of **Figure 4.4.13-7**). As the trees in the park are a mix of coniferous (evergreen) and deciduous trees, the bridge becomes more visible due to loss of foliage in the fall/winter months. A small paved parking lot (the Highbridge Parking Area) on the west side of the bridge provides some views of the bridge span as well as access to the start of the Gorge Trail and the Mary Jemison Trail (the parking area is shown on the left in view 5 of **Figure 4.4.13-6**). Continuing north past the bridge span, Park Road quickly bends away and downhill, and therefore the bridge is not visible from Park Road north of the bridge crossing. The Gorge Trail also bends away and downhill from the bridge moving north, which limits views of the bridge in this area to the portion of the trail near the trailhead (see view 6 of **Figure 4.4.13-6**).

The locations within Letchworth State Park from which the Portageville Bridge is most visible and prominent are vista points along the Gorge Trail farther north. The Gorge Trail runs along the west bank of the river, passing—at close to water level—the Upper Falls and Middle Falls. From the top of the Upper Falls, the trail is close to the Portageville Bridge and the bridge is dominant in the views (see view 1 of **Figure 4.4.13-4**). Farther north, the trail connects to the scenic vista point at the south end of the Upper and Middle Falls Picnic Area. The picnic area is located along the west bank of the river, close to the level of the water, between the Upper and Middle Falls. It has a large paved parking area, lawns with trees and stone picnic tables, a concession stand and a comfort station. The Gorge Trail runs along the edge of the picnic area close to the river's edge. At the south end of the picnic area, a path leads to a vista point with a bench and viewer. From this location, there is a dramatic view of the Upper Falls with the Portageville Bridge immediately behind it (see view 8 of **Figure 4.4.13-7**).

At the north end of the picnic area, the Gorge Trail provides pedestrian access to a point immediately above the Middle Falls. From this location, viewers are close to the impressive volume of water cascading over the falls. Looking south from this location, the Portageville Bridge and Upper Falls are not visible, because of a bend in the river. The bridge and Upper Falls are also not visible from most other locations in the picnic area—other than brief glimpses through tree cover—because of the intervening trees (see view 9 of **Figure 4.4.13-8**).

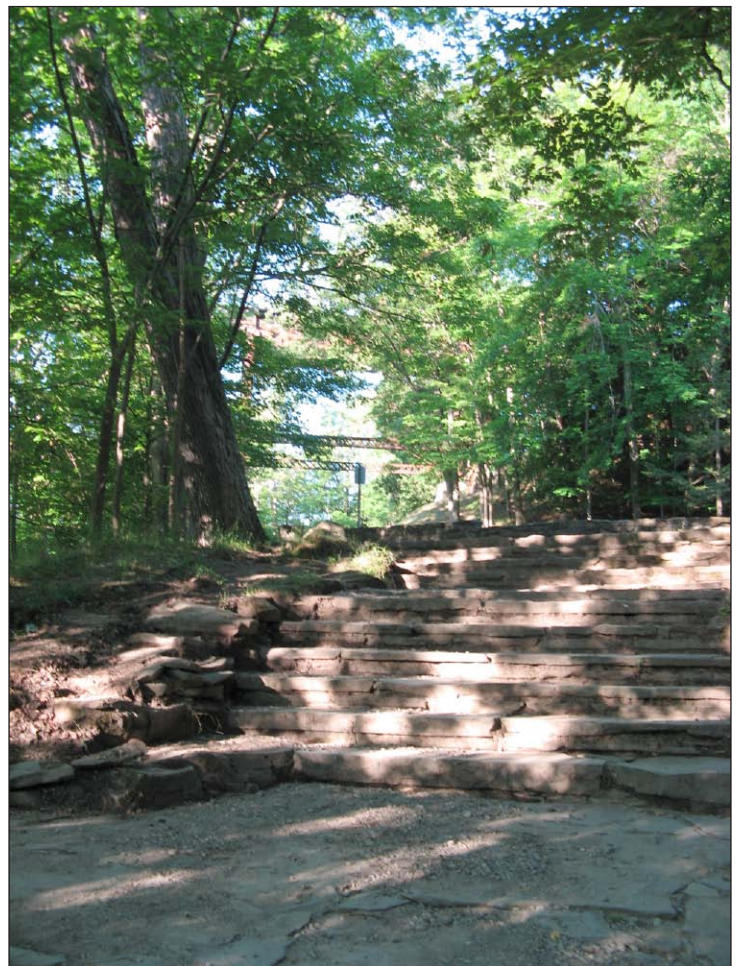
The historic Glen Iris Inn is west of and uphill from the Upper and Middle Falls Picnic Area. This mid-19th century structure, originally the home of William Pryor Letchworth, is a wood-clad building with a peaked roof and a two-story tall colonnade, capped by a balustrade (see view 10 of **Figure 4.4.13-8**). This structure is a contributing resource to the S/NRHP-listed Letchworth State Park, and is also considered a contributing resource to the aesthetic character of Letchworth State Park. The Glen Iris Inn has a large, grassy lawn lined with trees. Directly in front of (east of) the inn, a stone terrace faces the Genesee River gorge (see view 11 of **Figure 4.4.13-9**). This location provides a dramatic overlook above the Middle Falls (see view 3 of **Figure 4.4.13-5**). Also from this location, the Portageville Bridge is visible in the distance, behind





View north on Park Road on the west side of the Genesee River, south of the Portageville Bridge. The Highbridge Parking Area is on the left

5



View south of the Portageville Bridge from Gorge Trail #1

6





View north on Park Road on the west side of the Genesee River  
at the Portageville Bridge

7



View south of the Portageville Bridge from the Gorge Trail (Trail #1)  
at the Middle/Upper Falls Picnic Area

8





View south from the Middle/Upper Falls Picnic Area. The Portageville Bridge is barely discernible above and between the trees

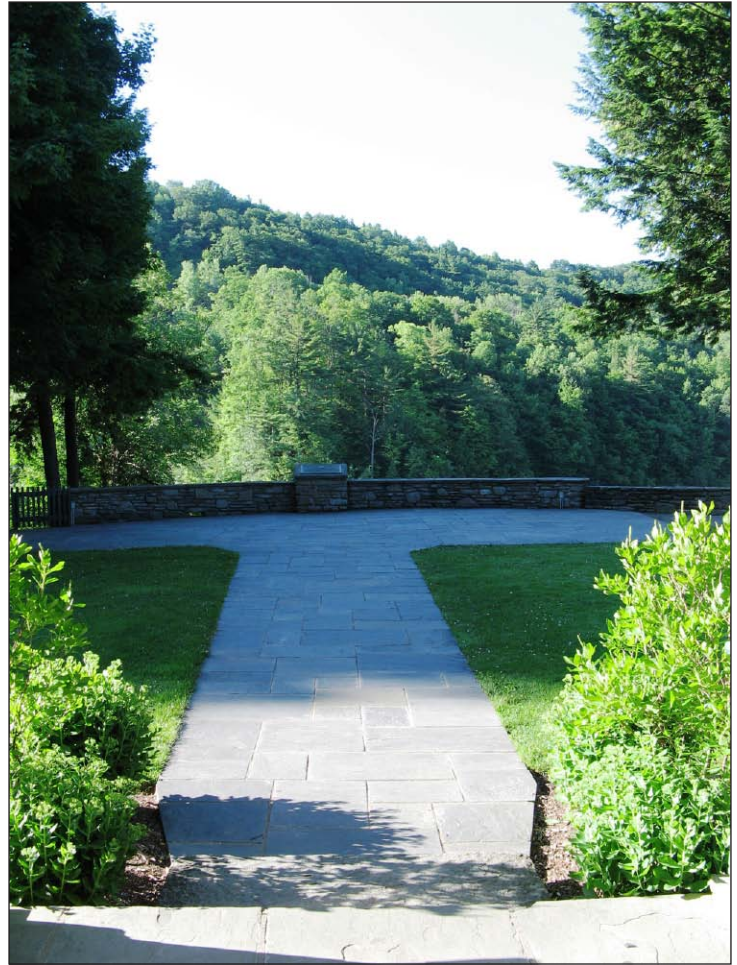
9



View of the Glen Iris Inn

10





View east of the Glen Iris Patio 11



View south from Inspiration Point. The Portageville Bridge is visible in the distance 12



the tree canopy of the Upper and Middle Falls Picnic Area (see view 3 of **Figure 4.4.13-5**). From other locations at Glen Iris Inn, including the lawn and the front porch, the bridge is not visible.

Continuing north along Park Road, a number of other scenic vistas are available. The widest vista is from the park's Inspiration Point, approximately 1½ miles north of the Portageville Bridge. From this location, the bridge is visible as a small element crossing through the tree canopy above the river gorge (see view 12 of **Figure 4.4.13-9**).

Beyond Inspiration Point, the Portageville Bridge is not visible from the west side of the Genesee River, including from the vista point at Lower Falls or from the rustic stone pedestrian bridge that crosses the river just north of the Lower Falls (see view 13 of **Figure 4.4.13-10**).

On the east side of the river, the Genesee Valley Greenway/Finger Lakes Trail runs along the gorge. The bridge is visible from some locations along this trail, but is not dominant in views as it is from certain locations on the west side of the river. The Genesee Valley Greenway Trail crosses the railroad right-of-way close to the bridge. More specifically, the bridge is prominently visible from this trail where the bridge crosses over it. Views of the bridge's abutments and its superstructure are visible as there is a clearing at the trail that affords views west to the river and of the bridge. The bridge is not prominently visible in views on the trail from the south due to the dense trees and vegetation. The bridge is visible from a number of discrete locations in views from the north on this trail. The bridge comes into view spanning above the trail some 300 feet north on the trail but is then only sporadically visible due to turns in the trail and dense vegetation. The bridge is visible from a small pedestrian path that extends from the trail to the edge of the gorge approximately 100 feet north of the bridge (see view 14 of **Figure 4.4.13-10**). Other than the bridge, the rest of the rail alignment and Project site are not readily visible. The railroad alignment extends east and west of the bridge at grade on a raised embankment, and then curves to the north on both sides of the river. The tracks are set in a gravel bed. On both sides of the river, the railroad alignment passes through wooded and densely vegetated areas in Letchworth State Park that are not easily accessible (see view 15 of **Figure 4.4.13-11**).

#### *Surrounding Area*

East of the Portageville Bridge, the rail right-of-way passes beside private property located within the larger boundaries of Letchworth State Park. In this area, the land south of the right-of-way is mostly forested, though with a large clearing. Several frame farmhouses, accessory buildings, and a residential trailer are located nearby.

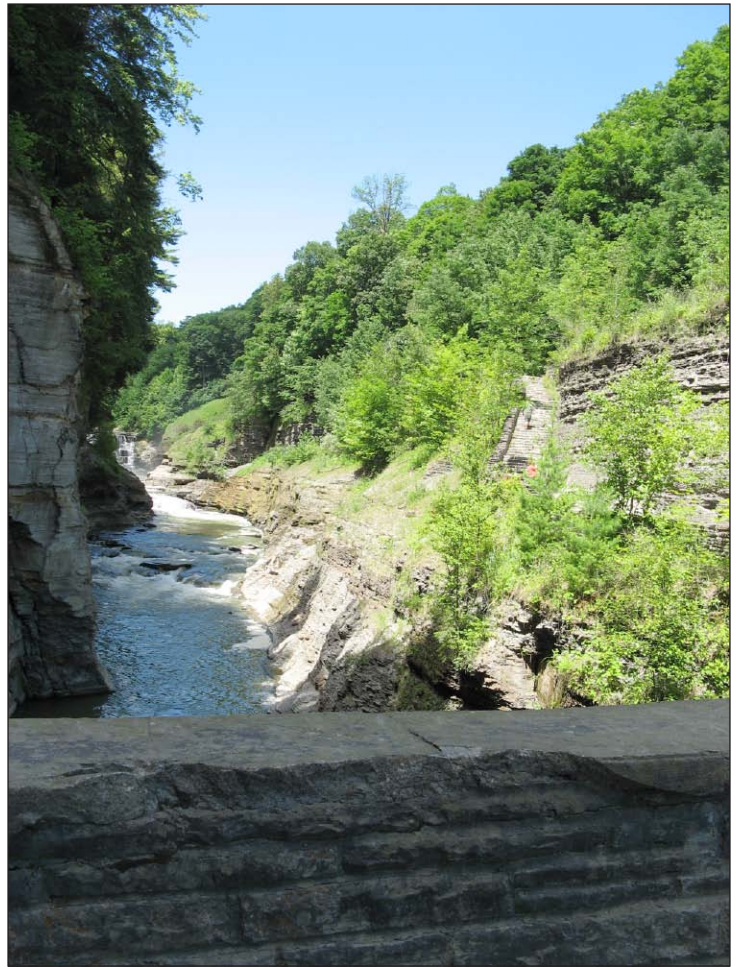
North of the right-of-way, Portageville Road roughly parallels the right-of-way, and joins Route 436 at a 45-degree angle farther north. There are residential and farming properties on the north and south sides of Portageville Road, containing older wood frame buildings (see view 16 of **Figure 4.4.13-11**). These are set within a gently rolling topography. The properties on the north side of the road have large cultivated fields for growing corn or hay and are bordered by hedgerows and deciduous and coniferous woodlots. The area between these agricultural areas and Letchworth State Park consists of a heavily wooded area.

#### **4.4.13-3-2 Viewer Groups and Views**

Within the park, which occupies the majority of the study area, viewer groups consist of passive and active park visitors, including those who use the park trails and recreational/picnicking areas, those visiting and staying at the Glen Iris Inn, and motorists on the park road on the west side of the river. Both active park visitors (e.g. hikers, bicyclists, fishermen) and passive park visitors (picnickers, sightseers, and visitors to the Glen Iris Inn) have the most direct and sustained views of the Project site. As described above, due to the park's hilly terrain, bends in the river, and densely vegetated areas, the Project site is visible only in the southern end of the park, and only from certain vista points on the east and west sides of the rivers (Upper and

View south from the stone footbridge located north of Lower Falls. Gorge Trail #1 is visible on along the west side of the Genesee River

13



<http://cnyhiking.com>



View south on Finger Lakes Trail #7  
(from pedestrian created path at the edge of the gorge)

14





View west on the railroad right-of-way towards the Portageville Bridge 15



View on Portageville Road on private land east of the Genesee River 16

Middle Falls Picnic Area vista point, Glen Iris overlook, Inspiration Point) and from limited locations along Gorge Trail and Genesee Valley Greenway Trail and from Park Road in proximity to the bridge.

In consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), four locations were selected for close analysis, which represent views/viewer groups from sensitive areas in the park. These locations and assessment of views are described below:

- View A: from the Upper and Middle Falls scenic overlook along Gorge Trail, located approximately 800 feet north of the Portageville Bridge. The overlook at the south end of the Upper and Middle Falls Picnic Area is a popular spot for visitors to view the Upper Falls and take photographs. It is a paved area along Gorge Trail, with a designated scenic overlook point. In this view, the Portageville Bridge is a dominant and dramatic feature above the Upper Falls (see **Figure 4.4.13-12**).
- View B: from the Inspiration Point Overlook, approximately a mile northeast of the Project site. A parking area and short trail allows easy access to this scenic overlook, which is also a very popular location for visitors to view the Upper and Middle Falls and take photographs. In this view, the Portageville Bridge is a significant feature in the background of the landscape, appearing to cross through the tree canopy behind the river (see **Figure 4.4.13-13**).
- View C: from an overlook on Gorge Trail, located approximately 400 feet north of the Project site. The overlook is a stone paved area that is located closer to the bridge (farther south) on the trail than view A. In this view, the Portageville Bridge is a dominant feature (see **Figure 4.4.13-14**).
- View D: from Park Road, just south of the underpass of the bridge on the west side of the river. This is the primary location from which the bridge can be seen by motorists, rather than by pedestrians. This view provides direct and close-up views of the bridge on the west side of the river (see **Figure 4.4.13-15**).

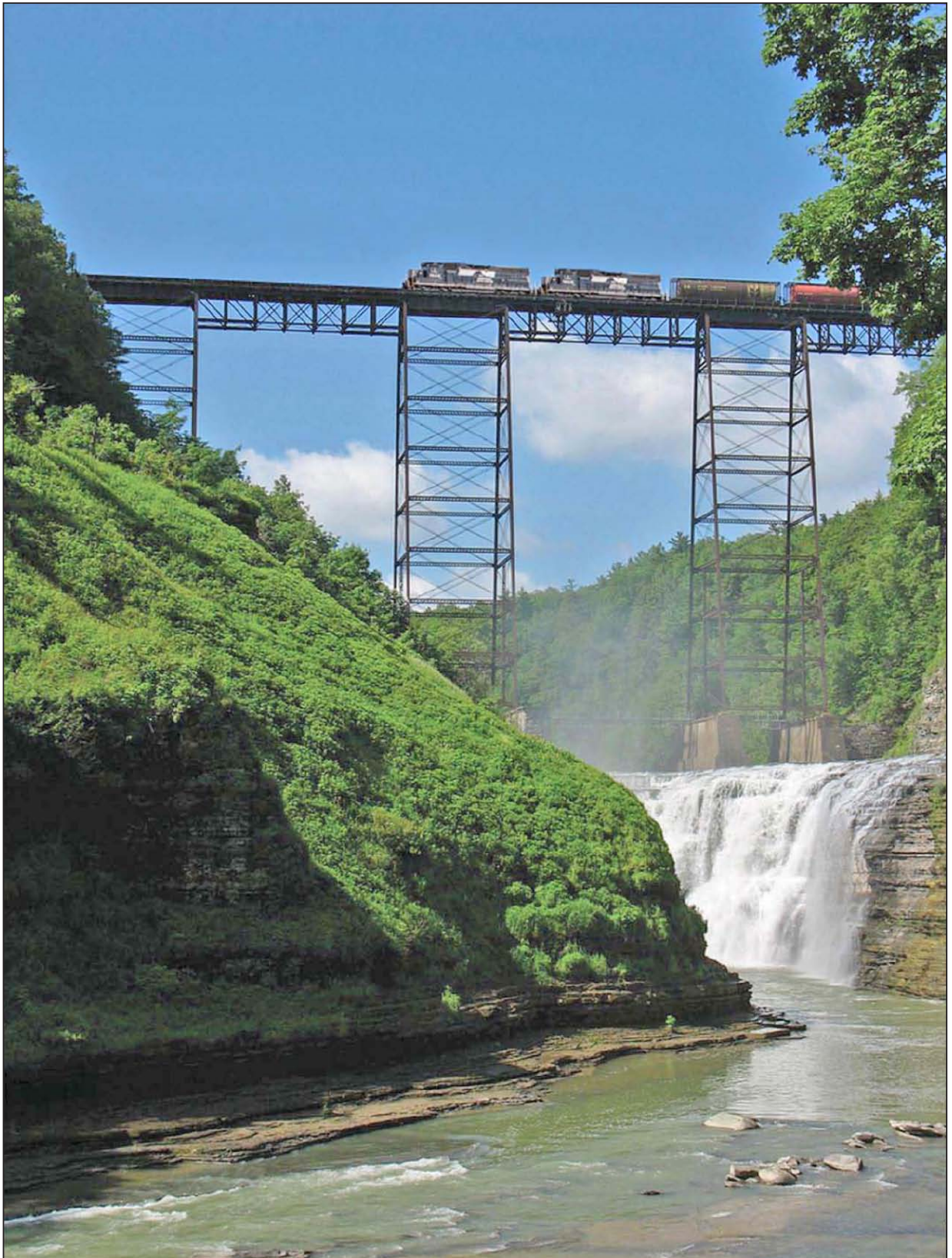
Outside the park, views of the bridge and Project site are not available from the roadways surrounding the park, including on Routes 19A and 436 and other local roads, or from the nearest town, the hamlet of Portageville. Dense vegetation and bends in the river blocks any views of the bridge and Project site from these locations.

Viewer groups in the rural and agricultural areas to the east of the bridge include residents of Portageville Road, the road that dead-ends at the rail right-of-way. From this area, the bridge is visible only from the rail right-of-way and at-grade crossing of a private dirt roadway. From that location, the bridge appears as an extension of the at-grade railway, since the gorge and river cannot be seen (see view 15 of **Figure 4.4.3-11**). Views of the railroad tracks to the east of the bridge are largely blocked by vegetation, other than from the nearest farmhouse on the north side of Portageville Road.

#### **4.4.13-4 EFFECTS ASSESSMENT**

For this visual impact assessment, the No Action Alternative and the Preferred Alternative were evaluated to consider how they would affect views of visual resources and overall aesthetic considerations. Utilizing visual modeling techniques, the existing bridge and the steel deck arch bridge that would be built in the Preferred Alternative were modeled using photo simulations to evaluate their relative visual impacts from specific viewpoints and distances.





Existing Conditions

Existing Conditions - Viewpoint A  
Figure 4.4.13-12





Existing Conditions





Existing Conditions





Existing Conditions



#### 4.4.13-4-1 No Action Alternative

Under the No Action Alternative, the Portageville Bridge would be retained and there would be no changes to visual character or aesthetic resources.

#### 4.4.13-4-2 Preferred Alternative

The Preferred Alternative would result in the demolition of the existing Portageville Bridge, one of the historic structures that contributes to the scenic qualities of the southern portion of Letchworth State Park, which as a property listed on the SNRHP is an aesthetic resource of statewide significance. As described earlier, the park's scenic features include its natural elements, including the forested gorge, majestic waterfalls, and scenic vistas; and its historic elements, including the railroad bridge, stone walls and staircases along the park's roads and trails, stone structures (comfort stations, concession stands, etc.) and picnic tables, and a number of historic structures such as the Glen Iris Inn. Many of the most scenic elements of the park are located in the southern half of the park, which houses the three major waterfalls and most of the historic structures in the park. This loss of the existing Portageville Bridge would result in an adverse impact to viewers in locations where the bridge is a principal element of the view. However, as described below, the removal of the Portageville Bridge would not result in an adverse impact on Letchworth State Park as a whole, since Letchworth State Park is an approximately 14,345-acre park with numerous significant visual elements. While the Portageville Bridge is one of many elements that contribute to the park's aesthetic and visual character, it is only visible from certain locations at the south end of the park, as described above.

The existing bridge would be replaced by a new bridge on a parallel alignment south of the existing bridge. As described in Chapter 3, "Project Alternatives," the new bridge would be a 485-foot-long spandrel-braced arch bridge, which would be built 245 feet above the Genesee River, similar to the existing bridge. The construction of the new bridge would require the realignment of Park Road at the location of the Portageville Bridge. The road would be shifted slightly westward from its existing location. Construction would also require the relocation of the Highbridge Parking Area (the small paved parking lot on the west side of Park Road just south of the bridge) as well as relocation of the trailheads for the Mary Jemison and Gorge Trails, which currently begin at the Highbridge Parking Area. The parking lot would be relocated to the east side of the realigned Park Road, north of the new bridge, and west of the Gorge Trail. The trailheads for the Mary Jemison Trail and Gorge Trail would be shifted slightly south of their existing positions, with both trails beginning at the Park Road south of the new bridge. Construction of the new bridge would also require the removal of vegetation and fieldstone walls located along Park Road and the Gorge Trail.

The new bridge would not have any piers set into the river, but instead would span over the gorge with the supports located on the east and west banks of the river (see **Figures 4.4.13-16 through 4.4.13-19**). The use of an arch bridge would have a positive effect in terms of natural features in views of the Genesee River, as the bridge supports would no longer be included in the viewshed, and the bridge structure would obscure less of the landscape beneath and behind it. The bridge would be located at approximately the same height as the existing bridge structure.

The bridge would be anchored within the gorge walls on either side of the river within excavated areas of the cliff. The rock walls within the excavated areas would be stabilized to prevent erosion with metal drape netting (a metal mesh curtain). A total of 13,800 square feet of existing cliff face surface would be blasted to create the two excavated areas where the bridge supports would be anchored. Within those two areas, a total of 24,000 square feet of bedrock would be newly exposed and would require stabilization to prevent future erosion. The use of drape



New Bridge Only





New Bridge Only





New Bridge Only



12.17.13



New Bridge Only

PORTAGEVILLE BRIDGE

Preferred Alternative - Viewpoint D  
Figure 4.4.13-19

netting rather than shotcrete (sprayed concrete), as was used at the existing bridge, was selected to minimize the visual impact on the gorge. The drape netting is less visible and will allow vegetation to grow on the rock, which may eventually conceal the drape netting.

As described above, the existing Portageville Bridge is visible to active viewers in proximity to the bridge, including hikers on the Gorge Trail and Genesee Valley Greenway Trail, from in front of the Glen Iris Inn, to motorists on Park Road, and to both active and passive viewers at scenic overlooks along the trails, including the Upper and Middle Falls picnic area and Inspiration Point overlooks. Therefore, these sensitive areas and the viewers at these locations would be affected by the change in the view resulting from the removal of the existing bridge and replacement with a new bridge. Impacts would be most discernable to the viewers on the trails and at the Upper and Middle Falls scenic overlook, where the bridge is a principal component of the view—i.e., when the bridge is a large presence in the views such as shown in Views A and C (see **Figures 4.4.13-12 and 4.4.13-14**).

Views of the bridge on Park Road would be different from existing views, because of the realignment of Park Road to remove its existing sharp bend, and because the existing rail bridge would be replaced by a bridge more modern in character (see View D in **Figure 4.4.13-15** in comparison to View D in **Figure 4.4.13-19**).

It is not expected that the realignment of Park Road at the Portageville Bridge and the relocation of the Highbridge Parking Area would be visible except to park visitors in proximity, such as viewers on the Gorge Trail at the location of the parking lot, and possibly viewers on the Mary Jemison Trail at higher points on the trail when there is not full foliage. The parking lot would not be expected to be visible from the Genesee Valley Greenway Trail, as vegetation along the edge of the gorge would obstruct views.

With the Preferred Alternative, the views would still consist of one bridge crossing the Genesee River, of a similar height and alignment as the existing bridge. Removal of the existing bridge piers and supports from the river and gorge would open up views southward past Upper Falls. View durations would not change. Furthermore, while the Preferred Alternative would result in the removal of one contributing element of Letchworth State Park, it would retain the principal natural elements that define it, including the Genesee River, its steep and forested gorge, and heavily vegetated areas, and it would retain the concept of a rail bridge in the same location. Moreover, the bridge would be painted an earth-tone color, selected in coordination with OPRHP, to harmonize with the surrounding area. Landscaping would be used to selectively screen portions of the new bridge structure, including the bridge abutment on the west side of the new bridge and along the relocated parking lot.

In the excavated areas of the cliff face where the new bridge's foundations are located, some areas of newly excavated rock may be visible, but the bridge structure itself and vegetation in the foreground would largely block those views. The drape netting that would be used in this area to stabilize the rock may also be visible, but vegetation on the rock would minimize views of the drape netting and the exposed rock face. The drape netting would be visible when viewed from directly across the river and locations nearby. Due to its location within the pockets that house the new bridge supports, the drape netting is unlikely to be visible when viewed from downriver (to the north) or upriver (to the south).

As noted in NYSDEC's guidance document, an aesthetic impact occurs when:

there is a detrimental effect on the perceived beauty of a place or structure. Mere visibility, even startling visibility of a project proposal, should not be a threshold for decision making. Instead a project, by virtue of its visibility, must clearly interfere with or reduce the public's enjoyment and/or appreciation of the appearance of an inventoried resource.



Based on this guidance, the removal of the Portageville Bridge would interfere with the public's enjoyment of the bridge as a visual resource. The new bridge structure, however, would not obstruct views to, or interfere with or reduce the public's enjoyment of, the natural features that compose Letchworth State Park, and would enhance views of the river as the existing bridge supports within the river gorge would be removed. In addition, like the existing bridge, the visibility of the new bridge would be limited to locations at the south end of the park, and therefore, it would not interfere with views elsewhere in the park.

It should also be noted that there would be temporary visual impacts to viewers and viewsheds during the demolition of the existing bridge and construction of the new bridge, including closure of trails and associated viewing locations, and the operation of heavy machinery, including construction cranes, which would be visible above the vertical limits of the existing bridge. It is also expected that under this alternative, both the existing and proposed new bridge would be present in the viewshed for the entire construction period. For more information on construction impacts, see Chapter 4.5, "Construction Effects."

Measures to minimize adverse impacts resulting from the demolition of the Portageville Bridge and to reduce and minimize adverse potential impacts that could result from the construction of the new bridge include: construction of the new bridge in close proximity to the original; selection of an arch structure that does not require piers in the river; selected vegetated screening; bridge color, and consultation with OPRHP regarding the removal and recreation of additional park features. These measures are described in greater detail below under "Summary of Mitigation."

#### **4.4.13-5 SUMMARY OF MITIGATION**

Measures to mitigate the adverse impact resulting from the demolition of the existing Portageville Bridge and to reduce and minimize impacts on Letchworth State Park resulting from construction of a new bridge on a parallel alignment include:

- The alignment of the new bridge parallel and close to that of the existing bridge. This avoids additional impacts on established viewsheds and sensitive viewer locations that would occur if the new bridge structure were placed in a new location in the park rather than close to the alignment of the new bridge.
- The use of an arch bridge. While different from the rectilinear form of the existing bridge, the arch bridge obscures less of the landscape beneath it and behind it, by virtue that the span has no supports in the gorge or river.
- Planting of new vegetation to selectively screen portions of the new bridge structure. This includes at the bridge abutment on the west side of the new bridge, as this abutment would be visible from the Park Road. Planting of new vegetation along the east side of the relocated parking lot would create a visual buffer between the parking lot and the Gorge Trail directly to its east.
- The selection of the bridge color. An earth-tone color would blend in more with the surrounding landscape than other colors.
- Use of drape netting on newly exposed rock areas of the gorge that must be excavated for the Project, to minimize the visibility of the excavation.
- Restoration of Gorge Trail. For the portion of the Gorge Trail that will be relocated for the Project, Norfolk Southern will salvage to the extent feasible, stone from the walls, for reuse along the relocated portion of the Gorge Trail. Norfolk Southern will also provide certain funding to OPRHP for the restoration of the existing Gorge Trail between the proposed construction zone for the Project and the Middle Falls (outside the Project limits).

- Consultation with OPRHP with respect to the re-creation of park features that may be removed for construction of the new bridge, including the southern trailheads for the Mary Jemison Trail and the Gorge Trail.
- Educational and Interpretive Materials at Letchworth State Park. Norfolk Southern will provide certain funding to the New York State Natural Heritage Trust for the preparation of the following educational and interpretive materials at Letchworth State Park: an interpretive plan; the salvage, conservation, and installation of a part of the base of Pier 11 of the Portageville Bridge; the creation and installation of two interpretive kiosks; and the creation of a museum exhibit.